

A FEW PLANTS OF THE BLUE HILLS RESERVATION.

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THE Metropolitan Park Commissioners have published a Flora prepared under the direction of Mr. Walter Deane, in which most of the species noticed below are mentioned. Personal observations on the occurrence of these plants may, however, be of interest. Several additions to this list will also be made.¹

Liparis liliifolia is found growing upon a clayey plateau at an elevation of about 400 feet, accompanied by *Anemone virginiana* and *Asclepias quadrifolia*, while a little farther on are large plants of *Geranium robertianum* with innumerable seedlings.

Pogonia verticillata is represented by three large patches, one of which is at the very top of a high hill, near the edge of a water hole.

I have thus far discovered in the Reservation only four species of *Habenaria*; namely, *H. tridentata* in a maple swamp, *H. lacera* bordering the edge of a pond, *H. psycodes* in three different places, and *H. blephariglottis* in a dry neglected cranberry meadow.

While tracing a brook one day I found *Corallorhiza innata* growing upon hummocks of *Sphagnum* under low alders, birches, and pines. There were about forty plants some of which were not more than two inches high.

Polygala polygama is quite common and grows along the park roads in the dry sand, exposed to the full rays of the burning sun. Very often the cleistogamous flowers rest upon the top of the ground and are plainly visible. *P. paucifolia* is found in rich springy woods surrounded by ferns and several species of *Lycopodium*. *Veratrum viride* was also found in these woods, as well as *Clintonia borealis* and *Cornus canadensis*.

Calla palustris, in a muddy swamp and shaded by a sharp hill, reaches a very unusual size.

Half way up Great Blue Hill under red cedars are several shrubs of *Ligustrum vulgare*. This is quite remarkable, so far away from

¹ When this territory was first taken as a reservation a special permit was necessary before one could botanize here. At the present time, however, one is allowed to collect flowers and fruits of specimens, but in order to obtain roots the permit is still necessary. It might be well to state, also, that the Park Commissioners have issued maps of the roads, foot-paths, brooks, etc., of the Reservation, which are of great assistance to those desiring to botanize in this vicinity.

any dwelling. The shrubs were six or eight feet high and nearly perfect in form, and when I last saw them they were completely covered with a mass of white flowers.

Higher up on this hill *Pycnanthemum linifolium* grows in large patches, and near the top *Diervilla trifida* borders the paths upon the north side, while along the road-sides at the foot of the hill a few plants of *Triosteum perfoliatum* may be seen, thickly covered with dust.

Houstonia purpurea, var. *longifolia* is not uncommon, being found in dry sandy soil in much the same surroundings as *Polygala polygama*.

One field well worthy of mention is covered with *Houstonia caerulea* growing in its perfection. When the plants are in flower the field is a mass of Houstonia blue, visible for a long distance.

A narrow but interesting strip of woods covering a portion of a small hill-side furnishes some of the most desirable plants of the whole section. *Conopholis americana*, not found elsewhere in the Reservation, and possibly now reported for the first time this side of Boston, here lifts its fleshy spikes of yellow flowers above the dried oak leaves that cover the ground on the sunny slope of this hill. Seventy-one spikes were counted here last year — a decided increase over those of 1900. *Aralia racemosa* is found sparingly here, and also *Corallorhiza multiflora*, *Goodyera pubescens*, *Actaea alba*, *Desmodium paniculatum*, *D. rotundifolium*, *Chimaphila maculata*, *Cornus canadensis* and *Lobelia spicata*.

This hill abruptly ends in a maple swamp, where a small brook winding in and out and bordered with graceful ferns, makes one of the most picturesque spots in this vicinity. Along this brook at one place, growing in deep Sphagnum, there were in 1899 seven small plants of *Microstylis ophioglossoides*; in 1900 only five were left. After careful search last season three very small specimens were all that could be found there, but upon exploring farther up the brook a collection of about one hundred plants was discovered, some of which measured more than seven inches above the Sphagnum in which they grew. I have found this species in Warquoit, Massachusetts, (a part of Falmouth) growing always under oaks and pitch pines in the grass in sandy soil. It also grows in Holbrook, Mass., in dry oak woods. I have compared the plants found in Sphagnum with those that have grown in sand, and it seems to me that *Microstylis* fur-

nishes a parallel to *Spiranthes cernua*, one form of which grows in meadows, another very slightly different, on uplands.

Following down the brook we come to a pond just on the line of the Reservation, where numerous species of aquatic plants are well represented. *Lobelia dortmanna* grows here in the shallow water, accompanied by unusually large plants of *Xyris caroliniana*, some of which are more than 4 feet high. On a sunny morning the blossoms of *Xyris* form a solid mass of yellow, from the sparkling water to the edge of the dark woods. In the grass on the bog *Utricularia cornuta* may be found, together with *Arethusa bulbosa*, and in the fall *Coreopsis trichosperma*. *Utricularia purpurea*, *U. inflata*, *Brasenia peltata*, *Limnanthemum lacunosum*, *Nymphaea odorata*, var. *minor*, and also the type are abundant in the deeper water.

A few plants of *Hottonia inflata* still linger in one of the brooks of the Reservation, while in another *Ranunculus aquatilis*, var. *trichophyllus*, with its long trailing branches, finely dissected leaves, and creamy white flowers, grows luxuriantly in the dark shaded spots.

Aphyllon uniflorum struggles for existence in the crevices of a ledge in one place. *Lupinus perennis* is also found here, although not in such numbers as in a place some distance away by the roadside, not far outside the Reservation.

Anemonella thalictroides and *Viola pubescens* grow together on a rocky, rather barren slope.

Eupatorium aromaticum, one of the most delicate of the Eupatoriums, is scattered over a hillside under stunted oaks, where is also *Ceanothus americanus*, which is rather common along the sandy roads. A few plants of *Smilacina stellata* were found growing upon a moist bank in 1899, but have not been visited since.

The following species which I have collected in the Reservation are not recorded in the Flora above mentioned:

<i>Ranunculus recurvatus</i>	<i>Veratrum viride</i>
<i>Geum rivale</i>	<i>Clintonia borealis</i>
<i>Chrysoplenium americanum</i>	<i>Hottonia inflata</i>
<i>Gratiola aurea</i>	<i>Conopholis americana</i>
<i>Utricularia vulgaris</i>	<i>Smilacina stellata</i>
<i>Polygala paucifolia</i>	

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